

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A cylinder lock (1) and key (2) combination, comprising
 - a cylinder shell (140),
 - a key plug (130) which is rotatably mounted in said shell,
 - a longitudinal key slot (100) extending along said key plug in parallel to the rotational axis thereof for receiving a key blade (200) having, at a side surface (201) thereof, a longitudinally extending groove (202) with a side wall (203) forming a longitudinally extending coded surface (203),
 - at least one locking tumbler assembly (110) having a body segment (113) with a contact portion (115) reaching into said key slot so as to engage with said coded surface (203) of a properly shaped key blade being inserted into said key slot, and
 - at least one cavity (120) located at a transversal side of said key slot (100) in said key plug (130), said cavity accommodating an associated one of said at least one tumbler assembly and guiding the latter for elevational movement therein,
 - said at least one locking tumbler assembly (110) comprising a pair of adjacent tumbler body segments (113, 114) accommodated in the same cavity, and
 - each tumbler body segment (113, 114) having an associated contact portion (115, 116) reaching into said key slot (100),

characterised in that

- said adjacent tumbler body segments (113, 114) in said pair are not connected to each other and are elevationally movable independently of each other in said cavity so as to be individually displaced into respective elevational positions, and

- said associated contact portions (115, 116) in said pair are axially separated in the longitudinal direction of the key plug such that these contact portions are located at a longitudinal distance from each other and will be positioned at elevationally specific and generally different levels when being engaged by said coded surface (203) upon insertion of said key blade (200) into said key slot (100)

- whereby the tumbler body segments (113, 114) in each pair are displaceable into a number of different positions relative to each other representing different codes.

2. (Previously Presented) A cylinder lock and key combination as defined in claim 1, wherein each segment in said pair of adjacent tumbler body segments (113, 114) is guided in a respective portion of said cavity (120).

3. (Previously Presented) A cylinder lock and key combination as defined in claim 2, wherein said pair of adjacent tumbler body segments (113, 114) have supplementary cross-sections, which together substantially correspond to the cross-section of said cavity (120).

4. (Previously Presented) A cylinder lock and key combination as defined in claim 3, wherein said adjacent tumbler body segments (113, 114) of said pair are partially defined by part-cylindrical surface portions being guided by wall portions defining said cavity (120).

5. (Currently Amended) A cylinder lock and key combination as defined in claim 3, wherein said adjacent tumbler body ~~segments~~ portions of said pair have mutually engaging surface ~~segments~~ portions (113a, 114a) being in sliding engagement with each other.

6. (Previously Presented) A cylinder lock and key combination as defined in claim 5, wherein said mutually engaging surface portions (113a, 114a) are substantially planar.

7. (Previously Presented) A cylinder lock and key combination as defined in claim 1, wherein said key plug (130) contains a row of cavities (120), at least one of which accommodating a pair of adjacent tumbler body segments (113, 114).

8. (Previously Presented) A cylinder lock and key combination as defined in claim 1, wherein said key plug (130) includes at least one locking tumbler assembly (113,114) on each transversal side of said key slot (100).

9. (Previously Presented) A cylinder lock and key combination as defined in claim 1, wherein said pair of adjacent tumbler body segments (113, 114) cooperate with a side bar (150) being accommodated in a longitudinal recess (151) in said cylinder shell (140), said side bar (150) being adapted to normally lock the key plug against rotation in said shell and to be displaceable into a releasing position upon insertion of a properly coded key blade (200) into said key slot (100).

10. (Previously Presented) A cylinder lock and key combination as defined in claim 1, wherein said contact portions of said tumbler body segments (113,114) are constituted by outwardly projecting fingers (115,116).

11. (Previously Presented) A cylinder lock and key combination as defined in claim 10, wherein said fingers (115, 116) are positively guided in said longitudinally extending groove (202) upon insertion of said key blade into said key slot.

12. (Currently Amended) A cylinder lock (1) comprising:
a cylinder shell (140),
a key plug (130) which is rotatably mounted in said shell,
a longitudinal key slot (100) extending along said key plug in parallel to the rotational axis thereof for receiving a key blade (200) having, at a side surface (201) thereof, a longitudinally extending groove (202) with a side wall (203) forming a longitudinally

extending coded surface (203),

at least one locking tumbler assembly (110) having a body segment (113) with a contact portion (115) reaching into said key slot so as to engage with said coded surface (203) of a properly shaped key blade being inserted into said key slot, and

at least one cavity (120) located at a transversal side of said key slot (100) in said key plug (130), said cavity accommodating an associated one of said at least one tumbler assembly and guiding the latter for elevational movement therein,

said at least one locking tumbler assembly (110) comprising a pair of adjacent tumbler body segments (113, 114) accommodated in the same cavity, and

each tumbler body segment (113, 114) having an associated contact portion (115, 116) reaching into said key slot (100),

characterised in that

said adjacent tumbler body segments (113, 114) in said pair are not connected to each other and are elevationally movable independently of each other in said cavity so as to be individually displaced into respective elevational positions, and

said associated contact portions (115, 116) in said pair are axially separated in the longitudinal direction of the key plug such that these contact portions are located at a longitudinal distance from each other and will be positioned at elevationally specific and generally different levels when being engaged by said coded surface (203) upon insertion of said key blade (200) into said key slot (100),

whereby the tumbler body segments (113, 114) in each pair are displaceable into a number of different positions relative to each other representing different codes;

as defined in claim 1 said cylinder lock having at least one pair of independently movable tumbler body segments (113, 114) accommodated in a cavity (120) in a key plug (130) forming part of a cylinder lock in a lock and key combination.

13. (Currently Amended) A key blade (200) for use in a cylinder lock and key system comprising:

a cylinder shell (140),

a key plug (130) which is rotatably mounted in said shell,

a longitudinal key slot (100) extending along said key plug in parallel to the rotational axis thereof for receiving a key blade (200) having, at a side surface (201) thereof, a longitudinally extending groove (202) with a side wall (203) forming a longitudinally extending coded surface (203),

at least one locking tumbler assembly (110) having a body segment (113) with a contact portion (115) reaching into said key slot so as to engage with said coded surface (203) of a properly shaped key blade being inserted into said key slot, and

at least one cavity (120) located at a transversal side of said key slot (100) in said key

plug (130), said cavity accommodating an associated one of said at least one tumbler assembly and guiding the latter for elevational movement therein,

said at least one locking tumbler assembly (110) comprising a pair of adjacent tumbler body segments (113, 114) accommodated in the same cavity, and

each tumbler body segment (113, 114) having an associated contact portion (115, 116) reaching into said key slot (100),

characterised in that

said adjacent tumbler body segments (113, 114) in said pair are not connected to each other and are elevationally movable independently of each other in said cavity so as to be individually displaced into respective elevational positions, and

said associated contact portions (115, 116) in said pair are axially separated in the longitudinal direction of the key plug such that these contact portions are located at a longitudinal distance from each other and will be positioned at elevationally specific and generally different levels when being engaged by said coded surface (203) upon insertion of said key blade (200) into said key slot (100),

whereby the tumbler body segments (113, 114) in each pair are displaceable into a number of different positions relative to each other representing different codes;

as defined in claim 1—said key blade having, at a side surface (201) thereof, a longitudinally extending groove (202) with a side wall (203) forming a longitudinally

extending coded surface (203) with at least one pair of neighbouring code surface portions (204, 205) located at elevationally specific and generally different levels for co-operation with the respective contact portions of a pair of adjacent tumbler body segments of a lock.

14. (Previously Presented) A key blade as defined in claim 13, wherein said longitudinally extending groove (202) positively guides said respective contact portions, constituted by outwardly projecting fingers, when the key blade is inserted into a lock.

15. (Previously Presented) A key blade as defined in claim 13, wherein said key blade (200) is symmetrical with longitudinal coded surfaces on each side thereof.

16. (Previously Presented) A key blade as defined in claim 13, wherein said coded surface (203) comprises a longitudinal row of pairs (204, 205) of neighbouring code surface portions.

17. (Currently Amended) A key blank for producing a key blade for use in a cylinder lock and key combination comprising:

a cylinder shell (140),

a key plug (130) which is rotatably mounted in said shell,

a longitudinal key slot (100) extending along said key plug in parallel to the rotational axis thereof for receiving a key blade (200) having, at a side surface (201) thereof, a

longitudinally extending groove (202) with a side wall (203) forming a longitudinally extending coded surface (203),

at least one locking tumbler assembly (110) having a body segment (113) with a contact portion (115) reaching into said key slot so as to engage with said coded surface (203) of a properly shaped key blade being inserted into said key slot, and

at least one cavity (120) located at a transversal side of said key slot (100) in said key plug (130), said cavity accommodating an associated one of said at least one tumbler assembly and guiding the latter for elevational movement therein,

said at least one locking tumbler assembly (110) comprising a pair of adjacent tumbler body segments (113, 114) accommodated in the same cavity, and

each tumbler body segment (113, 114) having an associated contact portion (115, 116) reaching into said key slot (100),

characterised in that

said adjacent tumbler body segments (113, 114) in said pair are not connected to each other and are elevationally movable independently of each other in said cavity so as to be individually displaced into respective elevational positions, and

said associated contact portions (115, 116) in said pair are axially separated in the longitudinal direction of the key plug such that these contact portions are located at a longitudinal distance from each other and will be positioned at elevationally specific and generally different levels when being engaged by said coded surface (203) upon insertion of

~~said key blade (200) into said key slot (100),~~

~~whereby the tumbler body segments (113, 114) in each pair are displaceable into a number of different positions relative to each other representing different codes,~~

~~as defined in claim 13,~~ said key blade having, at a side surface thereof, a longitudinally extending coded surface (203), said coded surface (203) being cut out from at least one material portion at the side of the key blade and having a pair of neighbouring code surface portions (204,205) for cooperation with the respective contact portions of a pair of adjacent tumbler segments in the cylinder lock.

18. (Previously Presented) A key blank as defined in claim 17, wherein the coded surface (203) is undercut.